



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,886	08/30/2001	Michael Anthony Pugel	PU010164	9822

7590 08/30/2006

JOSEPH S. TRIPOLI  
THOMSON MULTIMEDIA LICENSING INC.  
2 INDEPENDENCE WAY  
P.O. BOX 5312  
PRINCETON, NJ 08543-5312

EXAMINER

MEHRA, INDER P

ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 08/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/942,886

Applicant(s)

PUGEL, MICHAEL ANTHONY

Examiner

Inder P. Mehra

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-8 and 13-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-8 and 13-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/5/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This office action is in response to amendment dated: 11/30/2005. Based on this amendment claims 2-8 and 13-21 are pending.

#### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2-8, 13-15, 16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Gordon et al** (US patent No. 6,754, 271), hereinafter , Gordon, in view of **Lude et al** (US Patent Application Publication No. 2002/0184642), hereinafter, Lude.

For claims 3, 13 and 16, Gordon discloses a method , comprising:

- associating each of at least one group of packets forming a bit stream with a stream identifier and a respective sequence code, said at least one group of packets comprising at least one bit stream packet, (refer to fig. 20, and col. 23 line 63-col. 24 line 13); and
- said data structure comprising a header portion and a payload portion, said payload portion, **as recited by claim 16**, refer to col. 9 lines 45-50 and col. 12 lines 24-26.

Art Unit: 2617

- transmitting, via any one of a plurality of available transmission channels, each of said at least one group of packets, said transmission channels nominally transmitting NULL packets (**Gordon discloses, “add null packets”, refer to col. 22 lines 55-60**),
- adapting a packet structure for at least one packet of said at least one group of packets (video 2012 a-j, audio 2014 and data streams 2016a-j of packets) to conform to a network packet structure suitable for use by said transmission channels (**Final transport streams, 2018**), refer to fig. 20, col. 23 lines 63-67;

Gordon does not disclose explicitly the following limitations, which are disclosed by Lude, as follows:

- in the event of underutilization, said at least one group of packets being transmitted in place of said nominally transmitted NULL packets (**Lude discloses “An encapsulator replaces some null packets with content packets(Y) to produce a transport stream of XY % null packets, which is transported by a transmitter 440 downstream of the system”, refer to paragraph 0056**);

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of in the event of underutilization, said at least one group of packets being transmitted in place of said nominally transmitted NULL packets . The capability can be implemented at the Network Packet converter. The motivation for doing so is to avoid underutilization of bandwidth.

For claims 2, 4-8, 14-15 and 19, Gordon discloses all the limitations of subject matter of these claims including the following limitations:

- wherein at least one of said at least one group of packets forming said bit stream are correlated with channel identification , **as recited by claim 2, refer to fig. 20**, and time of transmission information for, respectively, indicating which of said plurality of transmission channels, **as recited by claims 2 and 6**, will carry respective packet groups and the time said at least one group of packets are carried, **as recited by claim 2, (refer to fig. 20 and col. 23 lines 63-65 for “time period” and col. 24 for “time point”)**.
- **said network packet structure comprises a header portion and a payload portion, said payload portion including at least one associated groups of packets, as recited by claim 4, (refer to fig.2,packetizer, col. 9 lines 5-8);**
- **said network packet structure includes stream identifier and sequence code information corresponding to said at least one group of packets included within said payload portion, as recited by claim 5, refer to figs. 20-21, refer to col. 24 lines 54-56;**
- **determining the loading of each of a plurality transmission channels, as recited by claim 7, (refer to fig. 2, multiplexing unit 116 ----to produce one or more transport streams---video, audio, and data streams, refer to col. 6 lines 39-42);**
- **determining an allocation of bit stream packets among the transmission channels, refer to packetizers 240a-m, col. 9 lines 5-15;**

Art Unit: 2617

- inserting non-allocated bit stream packets into said transmission channels in place of said nominally transmitted NULL packets, **(refer to “the null data may be replaced by the graphics grid slices (e.g., at a later step, within the LNE, refer to col. 33 lines 35-40),**
- wherein said allocation of bitstream packets among said transmission channels is determined with respect to at least one of the following criteria;
  - transmission channel data rates, bitstream data rate, transmission channel utilization level, transmission channel loading level, transmission channel scheduling, bitstream quality of service requirement, **and recited by claim 8, refer to col. 25 lines 4-14..**
- wherein said network interface utilizes said channel identification and time of transmission information to allocate respective transmission channel time slots to said at least one group of packets to be transmitted via said identified channel, **as recited by claim 15, ( refer to “fig. 29, and col. 29 lines 24-27).**

3. Claims 17-18 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gordon, in view of Lude, as above, further in view of **Yasuda et al** (US Patent No.6,373,905), hereinafter, Yasuda.

For claims 17-18 and 20-21, Gordon in view of Lude disclose all the limitations, with the exception of the following limitations, which are disclosed by Yasuda, as follows:

- wherein said stream identifier and said sequence code are stored within said header portion of said data structure, **as recited by claim 17**, refer to col. 2 lines 37-44.
- wherein said stream identifier and said sequence code are stored within the payload portion of said data structure, **as recited by claim 18**, , refer to col. 2 lines 37-44.
- wherein said channel identification and time of transmission information are stored within said header portion of said data structure, **as recited by claim 20**, , refer to col. 2 lines 37-44.
- wherein said channel identification and time of transmission information are stored within the payload portion of said data structure, **as recited by claim 21**, , refer to col. 2 lines 37-44.

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of stream identifier and said sequence code are stored within said header portion as well as payload portion of said data structure . The capability can be implemented at the Network Packet converter. The motivation for doing so as taught by Yasuda being that different paths are routed for the same flow.

#### ***Response to Arguments***

4. Applicant's arguments with respect to claim 2-8 and 13-21 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues "Thus, at the least, Gordon does not disclose the event of transmission channel undentilization, and further does not disclose the nominal transmission of null packets

Art Unit: 2617

in such event, let alone the insertion of at least one group of packets in place of the null packets to minimize the underutilization of the transmission channels, as essentially recited in Claims 3, 13, and 16.

In response, Examiner states that Gordon discloses, “transmitting, via any one of a plurality of available transmission channels, each of said at least one group of packets, said transmission channels nominally transmitting NULL packets” (refer to “add null packets”, col. 22 lines 55-60).

Further, Examiner discloses, “in the event of underutilization, said at least one group of packets being transmitted in place of said nominally transmitted NULL packets (Lude discloses “An encapsulator replaces some null packets with content packets(Y) to produce a transport stream of XY % null packets, which is transported by a transmitter 440 downstream of the system”, refer to paragraph 0056);

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, however, Gordoin discloses singularly, “transmitting, via any one of a plurality of available transmission channels, each of said at least one group of packets, said transmission channels nominally transmitting NULL packets (refer to “add null packets”, col. 22 lines 55-60), in the event of underutilization, said at least one group of packets being



Art Unit: 2617

transmitted in place of said nominally transmitted NULL packets (**Lude discloses “An encapsulator replaces some null packets with content packets(Y) to produce a transport stream of XY % null packets, which is transported by a transmitter 440 downstream of the system”, refer to paragraph 0056**);

**In light of above explanation, arguments by applicant are not persuasive.**

***Conclusion***

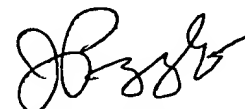
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Inder P. Mehra whose telephone number is 571-272-3170. The examiner can normally be reached on Monday through Friday from 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Inder Pal Mehra 8/1/06*

Inder P Mehra  
Examiner  
Art Unit 2617



JOHN PEZZLO  
PRIMARY EXAMINER